

In re LENOSKI ET AL., Application No. 09/519,282
Amendment A

REMARKS

In response to the non-final Office action mailed September 8, 2003, please consider the amendments and remarks presented herein. Reconsideration and/or further prosecution of the application is respectfully requested. No new matter is added herein.

In general, applicants respectfully traverse all prior art rejections as the Office action fails in its burden of establishing a prima facie case of anticipation or obviousness for each of the claims. Even so, applicants have amended some of the claims as described herein to help further prosecution.

In regards to the specification amendments: applicants appreciate the notification of the typographical error. The paragraph beginning on page 7, line 10 is amended to correct two typographical errors, and the paragraph beginning on page 8, line 4 is amended to correct the typographical error as 270 refers to the line card as shown in FIG. 2C. Applicants therefore request the objection to the specification be withdrawn. No new matter is added with these amendments.

In regards to the claim amendments: independent claim 1 is amended to recite a packet switch (not a packet switching system), and to include a broadcast component and that the packet with the error indication is transmitted through a portion of the interconnection network(s) and to conform more with applicants' preferred stylistic preferences. Claim 5 is amended to depend from claim 1, to conform more with applicants' preferred stylistic preferences, and to recite that the packet(s) sent through a portion of the interconnection network(s) from the second broadcast component to the input components. Claim 10 is amended to depend from claim 1 and to clarify that the falling below the threshold value is identified based on the received packets with error indications. New claims 19 and 20 are added to depend from claim 1 and to more specifically limit the location of the broadcast component in these dependent claims. Claims 6-9 remain as originally filed. Claims 2-4 and 11-12 are canceled herein without prejudice to free up claim fees for the new claims. Support for these amendments

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is provided, *inter alia*, in original claims 4, 5, 10, 15, and 16 FIGs. 1A-C, 3A-C, and 4, and in the specification on pages 2-13.

Claims 13-18 remain as originally filed, and as such, if a next Office action is issued (instead of a Notice of Allowability) and it introduces a new ground of rejection for any of claims 13-18, applicants submit that the next Office action shall not be made final per MPEP § 706.07(a).

New claims 21-25 are added herein. Independent claim 21 is an apparatus claim with limitations such as a broadcast mechanism located in the interconnection network(s), the packet with the error indication is transmitted through a portion of the interconnection network(s), and packet(s) are sent through a portion of the interconnection network(s) from the broadcast mechanism to the input components. Dependent claim 22 recites there are at least two interconnection networks, and dependent claims 23 and 24 more specifically limit the location of the broadcast mechanism in these two dependent claims. Independent claim 25 is a method claim with limitations describing how packet(s) notifying input components of error conditions are transmitted through the interconnection network(s). Support for these new claims is provided, *inter alia*, in original claims 4, 5, 10, 15, and 16, FIGs. 1A-C, 3A-C, and 4, and in the specification on pages 2-13.

The following remarks are numbered to reference the same numbered paragraphs of the Office Action to which they are directed.

Paragraph 2. Claim 1 is rejected under 35 USC § 102(b) as being anticipated by Teraslinna, US Patent 5,229,990. Applicants respectfully traverse this rejection as it fails to comply with the MPEP. The Office action apparently forgets to read all the elements/limitations of a claim together, as it equates lines 100-1 to 159-1 of Teraslinna as "a plurality of input components" in line 2 of the claim, while it equates line circuits 200 to 269 as "the plurality of input components" in line 7 of the claim (*emphasis added*). For at least this reason that the Office action doesn't apply the reference in the same manner to the same claim element, the Office action fails to present a prima facie case of anticipation as required by the MPEP.

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Moreover, lines 100-1 to 159-1 are apparently wires or transmission lines, and applicants do not understand how wires or transmission lines can perform the affirmative action of "sending a plurality of packets." Applicants also assume the Office action meant step 600 (not step 800) as discussed in col. 6, line 3. For at least these reasons, the Office action fails to present a *prima facie* case of anticipation as required by the MPEP.

Even so, applicants have amended claim 1 in order to further prosecution of this application has been pending for almost four years. As such, claim 1 is amended to recite a packet switch (not a packet switching system), and to recite a broadcast component and sending a packet containing an indication of the error to each of the plurality of input components, with the reasons for allowance being discussed hereinafter in relation to paragraph 3 of the Office action.

Paragraph 3. Claims 2, 3, 4, and 5 stand rejected under 35 USC § 103(a) as being unpatentable over Teraslinna, US Patent 5,229,990, in view of Iino, US Patent 6,418,115. (Note, the '115 patent issued to Iino, not "Lino" as stated in the Office action.)

The Office action fails to establish a *prima facie* case of obviousness as Teraslinna, alone or in combination with Iino neither teaches nor suggests all the claim elements and limitations as required by the MPEP. The burden is on the Office Action to establish a *prima facie* case of obviousness, which has not been done as the MPEP requires, *inter alia*, that:

"the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure."

MPEP § 706.02(j) (*citing In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991))(emphasis added).

Moreover, there is no teaching or motivation within Teraslinna and/or Limb to combine these references as done by the Office action; and even if so, the resulting system is not that recited in a claim.

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First, claims 2-4 are canceled herein and claim 5 is amended. Independent claim 1 is amended to recite, *inter alia*, sending a packet containing an indication of the error to each of the plurality of input components and a broadcast component. Thus, pending claims 1 and 5 now will be discussed.

Applicants agree with the Office action that Teraslinna fails to disclose "sending a packet containing an indication of an error." The Office action then equates the malfunction flag of Iino as an indication of the error condition, yet the Office action apparently forgets the claim limitation being addressed, as it fails to provide a teaching for the malfunction flag being *sent in a packet to each of the plurality of input components*. The rejection of this claim limitation stated in the Office action is non sequitur in that routing information changing unit 21 changes the contents of a packet header to route around the malfunction as this neither teaches nor suggests sending a packet containing an indication of an error. For at least this reason, the Office action fails to present a prima facie case of obviousness.

Amended claim 1 now further limits this as it recites that the packets are sent to and from the broadcast component through the interconnection network(s) of a packet switch, which applicants submit that Iino, especially Fig. 4, teaches away from this.

Applicants further agree with the Office action that Teraslinna fails to disclose sending a packet to a broadcast component of the packet switching system. The Office action again tries to apply the malfunction flag of Iino and equates the Input Switching Unit 3 of Iino as the broadcast component recited in original claim 4 (and amended claim 1). The Office action fails to explain what broadcasting functionality is possessed by Input Switching Unit 3, and as explained *supra*, the changing of a packet header to reroute a packet around a path neither teaches nor suggests the broadcast component broadcasting a status notification packet containing an indication of the error to the plurality of input components.

Applicants further agree with the Office action that Teraslinna fails to disclose sending a second packet to a second broadcast component of the packet switching system. The Office action again tries to apply the malfunction flag of Iino and equates Output Switching Unit 4 of

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lino as the second broadcast component recited in original claim 5 (and amended claim 5). The Office action fails to explain what broadcasting functionality is possessed by Output Switching Unit 4, and as explained *supra*, the changing of a packet header to reroute a packet around a path neither teaches nor suggests the broadcast component broadcasting a status notification packet containing an indication of the error to the plurality of input components. Moreover, lino teaches that Output Switching Unit 4 is not connected to any input components, so it is impossible for it to send packets with an error indication to the plurality of input components.

Applicants respectfully traverse the motivation used to modify Teraslinna with lino. The Office action states that the motivation to combine the references is based lino allowing transmission path bypassing of the malfunctioning switch in absence of a spare switch. However, the principal operation of Teraslinna is to provide N+K sparing. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." MPEP § 2143.01. As the MPEP forbids such a combination, applicants respectfully traverse the combination of Teraslinna with lino.

In regards to the first claim set, amended independent claim 1 and its dependent claims 5, 6, 7, 8, 9, 10, 19, and 20 are believed to be allowable for at least the reasons presented herein which differentiate these claims from the prior art of record, and thus are believed to be allowable. Applicants therefore request the rejections of claims 1-12 be withdrawn, and claims 1, 5, 6, 7, 8, 9, 10, 19, and 20 be allowed.

Paragraph 4. Claims 3, 4 and 5 are also rejected under 35 USC § 103(a) as being unpatentable over Teraslinna, US Patent 5,229,990, in view of Azuma, US Patent 6,430,150. Applicants traverse this rejection for at least the reason that pending amended claims 1, 5 and 10 and new claims 19 and 20 recite "a packet switch" not a "packet switching system", these rejections are moot and Teraslinna, alone or in combination with Azuma, neither teach nor suggest all the elements/limitations of pending claims 1, 5, 6, 7, 8, 9, 10, 19, and 20 be allowed.

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Applicants therefore request the rejections of claims 1-12 be withdrawn, and claims 1, 5, 6, 7, 8, 9, 10, 19, and 20 be allowed.

Paragraph 5. Claims 6, 7, 8 and 9 stand rejected under 35 USC § 103(a) as being unpatentable over Teraslinna, US Patent 5,229,990, in view of Iino, US Patent 6,418,115. Applicants traverse these rejections for at least the reasons presented herein in relation to paragraph 3, including that in support of the fact that Teraslinna, alone or in combination with Iino neither teaches nor suggests all the claim elements and limitations of independent claim 1 from which claims 6-9 depend, as well as the motivation and improper combination of these references. For at least these reasons, claims 6-9 are believed to be allowable over the prior art of record.

Paragraph 6. Claim 10 stands rejected under 35 USC § 103(a) as being unpatentable over Teraslinna, US Patent 5,229,990, and of Iino, US Patent 6,418,115, and further in view of Galand, US Patent 6,424,624. Applicants traverse these rejections for at least the reasons presented herein in relation to paragraph 3, including that in support of the fact that Teraslinna, alone or in combination with Iino neither teaches nor suggests all the claim elements and limitations of independent claim 1 from which claim 10 depends, as well as the motivation and improper combination of these references. Additionally, claim 10 is amended herein to depend directly from claim 1; and amended independent claim 1 recites "a packet switch" not a "packet switching system" and therefore these rejections are moot as the motivation (i.e., detecting congestion in any node of the network) for the addition of Galand is clearly not applicable. Also, the Office action apparently forgets to read all the elements/limitations of a claim together, as it equates lines 100-1 to 159-1 of Teraslinna as "a plurality of input components" in line 2 of independent claim 1 from which claim 10 depends, while in paragraph 6 it inconsistently equates line circuits 200 to 269 as "*the* plurality of input components" (*emphasis added*). As the prior art of record neither teaches nor suggests all the claim elements/limitations, applicants request the rejections of claims 1-12 be withdrawn, and claims 1, 5, 6, 7, 8, 9, 10, 19, and 20 be allowed.

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Paragraph 7. Claims 11-12 stand rejected under 35 USC § 103(a) as being unpatentable over Teraslinna, US Patent 5,229,990, in view of Iino, US Patent 6,418,115. Applicants traverse these rejections for at least the reasons presented herein in relation to paragraph 3, including that in support of the fact that Teraslinna, alone or in combination with Iino neither teaches nor suggests all the claim elements and limitations of independent claim 1 from which claims 11-12 depend, as well as the motivation and improper combination of these references. However, to fee-up claim fees for the newly added claims, claims 11-12 are canceled herein.

Paragraphs 8, 9 and 10. Original independent claim 13 and dependent claims 14, 15, 17 and 18 stand rejected under 35 USC § 103(a) as being unpatentable over Teraslinna, US Patent 5,229,990, in view of Iino, US Patent 6,418,115. Original dependent claim 16 stands rejected under 35 USC § 103(a) as being unpatentable over Teraslinna, US Patent 5,229,990, in view of Iino, US Patent 6,418,115 as applied to independent claim 13, and further in view of Azuma, US Patent 6,430,150.

First, the Office action fails to meet its burden of establishing a prima facie case of obviousness as it fails to provide a proper motivation for the combination of Teraslinna in Iino for at least the reasons presented in regards to paragraph 3. For at least this reason, applicants respectfully request the rejections of claims 13-18 be withdrawn.

Next, the Office action the Office action fails to meet its burden of establishing a prima facie case of obviousness as it fails to present a proper rejection for each and every element/limitation as required by the MPEP.

Independent claim 13 recites "a plurality of interconnection networks" while Teraslinna only discloses a single interconnection network. Teraslinna states in col. 5, lines 5-7 states "[t]he switching system comprises a *switching network 300* having a plurality of switching nodes 340-389...." An interconnection network is a term well-known in the art, and clearly shown in FIG. 1 and 2 is a single interconnection network. For at least this reason, applicants respectfully request the rejections of claims 13-18 be withdrawn.

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Independent claim 13 recites "wherein the fault data structure of at least one of the plurality of input components includes an indication *of which interconnection networks* the at least one input component may send packets through to reach a particular output component" (*emphasis added*). Iino is directed at changing a route of a transmission path formed in the single interconnection network 1, and not selecting between a plurality of interconnection networks. For at least this reason, applicants respectfully request the rejections of claims 13-18 be withdrawn.

Dependent claims 14-16 recite a broadcast mechanism, and the Office action equates the Input Switching Unit 3 of Iino as the broadcast mechanism, but fails to explain what broadcasting functionality is possessed by Input Switching Unit 3. Moreover, dependent claim 14 recites "a broadcast mechanism to receive an indication of a problem within the packet switching system and to notify the plurality of input components of the problem" (*emphasis added*). The Office action fails to even address this claim limitation in paragraph 14. For at least this reason and the reasons presented in regards to paragraph 3, applicants respectfully request the rejections of claims 13-18 be withdrawn. Additionally, claim 15 recites "wherein the broadcast mechanism *is located in one of the plurality of interconnection network*" (*emphasis added*). The Office action equates Input Switching Unit 3 as the broadcast component, and Iino clearly in FIG. 4 teaches that Input Switching Unit 3 is not located in an interconnection network 1. Claim 16 recites "wherein the broadcast mechanism is located in each of the plurality of interconnection networks" and it depends from claim 14, to which the Office action equates Input Switching Unit 3 as the broadcast component which is directed at changing a route of a transmission path formed in the single interconnection network 1 due to a failure within the single interconnection network 1, and Azuma's multiple nodes in a network adds nothing in overcoming the deficiency of the teachings of Teraslinna and Iino, and the Office action apparently forgets to read all the elements/limitations of a claim together (i.e., a dependent claims' elements/limitations and those of its independent claim and any intervening claims),

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including, but not limited to the plurality of input components, the plurality of output components, the plurality of interconnection networks, etc.

For at least these reasons and the reasons for allowance of independent claim 13, applicants respectfully request the rejections of claims 13-18 be withdrawn.

In regards to new claims 19-20, 21-24 and 25: these claims are previously described herein along with their support, and thus, will not be repeated here. Dependent claims 19-20 are allowable for at least the reasons presented for allowance of independent claim 1, from which they depend, and that the prior art of record neither teaches nor suggests the broadcast mechanism is located in an interconnection network as discussed herein, nor more specifically within a second stage switching element of a three stage switching interconnection network. Independent claim 21 is an apparatus claim with limitations such as a broadcast mechanism located in the interconnection network(s), the packet with the error indication is transmitted through a portion of the interconnection network(s), and packet(s) are sent through a portion of the interconnection network(s) from the broadcast mechanism to the input components, and as such, and independent claim 21 and dependent claims 22-24 are believed to be allowable over the prior art of record for at least the reasons presented herein in relation to paragraph 3 and paragraphs 8, 9, and 10. Independent claim 25 is a method claim performed by a packet switching, and is believed to be allowable as the prior art of record neither teaches nor suggests that input components of a packet switch are notified of error conditions within the packet switch by transmitting packets through the interconnection network(s) of the packet switch.

In view of the above remarks and for at least the reasons presented herein, all pending claims are believed to be allowable over the prior art of record, the application is considered in good and proper form for allowance, and the Office is respectfully requested to issue a timely Notice of allowance in this case. If, in the opinion of the Office, a telephone conference would expedite the prosecution of the subject application, the Office is invited to call the undersigned attorney.

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A one-month extension of time under 37 C.F.R. § 1.136 is requested. To the extent that a petition for a different or additional extension of time is deemed necessary, a petition for a sufficient extension of time to render the present submission timely is requested. Please charge Deposit Account No. 501430 the appropriate petition fee.

Moreover, the Commissioner is hereby generally authorized under 37 C.F.R. § 1.136(a)(3) to treat this communication or any future communication in this or any related application filed pursuant to 37 C.F.R. § 1.53 requiring an extension of time as incorporating a request therefore, and the Commissioner is hereby specifically authorized to charge Deposit Account No. 501430 for any fee that may be due in connection with such a request for an extension of time. Moreover, the Commissioner is hereby authorized to charge payment of any fee due any under 37 C.F.R. §§ 1.16 and § 1.17 associated with this communication or any future communication in this or any related application filed pursuant to 37 C.F.R. § 1.53 or credit any overpayment to Deposit Account No. 501430.

Respectfully submitted,
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By



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